

ENGLISH TRANSLATION OF THE INTERNATIONAL APPLICATION
FOR NATIONAL PHASE SUBMISSION

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Patent Claims

1. Overvoltage protection (1) having a spark gap (2) which has mutually opposite electrodes (3), with a light source for production of an ignition light as a function of initiation signals from a control unit, with the ignition light being designed for direct ignition of the spark gap (2), characterized by an optical waveguide (15) for carrying the ignition light to the spark gap (2).

2. The overvoltage protection (1) as claimed in claim 1, characterized in that the electrodes (3) are arranged on a platform (4) which is designed to be electrically isolated, is at a high-voltage potential and is provided for components to be mounted on, which can be connected to a high-voltage three-phase electrical power supply system, and in that the light source is grounded.

3. The overvoltage protection (1) as claimed in claim 1 or 2, characterized in that the light source has a pump laser (16) which is designed for optical pumping of a fiber laser (17), with an active medium of the fiber laser (17) being formed in one section of the optical waveguide (15).

4. The overvoltage protection (1) as claimed in one of the preceding claims, characterized by optics for focusing of the ignition light.

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5. The overvoltage protection (1) as claimed in one of the preceding claims, characterized in that the ignition light is guided on a surface of the electrode (3) facing the opposite electrode (3).

6. The overvoltage protection (1) as claimed in one of the preceding claims, characterized in that the free end of the optical waveguide (15) remote from the light source is arranged in one electrode (3).

7. The overvoltage protection as claimed in one of the preceding claims, characterized in that the spark gap is part of an ignition circuit (5) for ignition of a main spark gap.